DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015702

Address: 333 Burma Road **Date Inspected:** 19-Jul-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 Prime Contractor: American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Jobsite

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component: SAS OBG**

Summary of Items Observed:

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 3W/4W Weld ID: B1, Face B
- 2). OBG Field Splice 3W/4W Weld ID: D1 and D2, Face B
- 3). OBG Field Splice 3W/4W Weld ID: C1 and C2, Face B
- 4). OBG Field Splice 3E/4E Weld ID: D2, Face B
- 5). OBG Field Splice 4E/5E Weld ID: D1 & D2 Face A
- 6). OBG Field Splice 5E/6E Weld ID: C1 & C2 Face A

1). OBG Field Splice 3W/4W Weld ID: B1, Face B

The QAI periodically observed the in process welding of the OBG Field Splice 3W/4W weld ID: B1 Face B per the Flux Cored Welding (FCAW-G) process in the 3G (vertical) position by approved AB/F welding personnel Hua Quiang Hwang (ID 2930). The SE QC Inspector Steve McConnel was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-3110-3. Welding of the fill passes was in process for the remainder of the QA Inspectors shift and work at this location appeared to be in general compliance with contract

2). OBG Field Splice 3W/4W Weld ID: D1 and D2, Face B

The QAI periodically observed ABF personnel performing Plasma Cutting and grinding to prepare the groove for back welding. The work at this location was in process for the remainder of the QA Inspectors shift.

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3). OBG Field Splice 3W/4W Weld ID: C1 and C2, Face B

The QAI performed verification visual & magnetic particle testing of 10% of the lengths of OBG Field Splice 3W/4W weld ID: C1 & C2, Face B. The QAI inspected 550mm of Weld C1 from Y = 4728mm to Y = 5278mm and 550mm of weld C2 from Y = 5278mm to Y = 5828mm. The welds verified by the QAI were found to be in general compliance with contract documents. See Report of Magnetic Particle Testing Form TL-6028 generated by the QAI on this date.

4). OBG Field Splice 3E/4E Weld ID: D2, Face B

The QAI periodically observed AB/F approved welder Fred Kaddu (2188) grinding to excavate and performing repair welding of (1) one UT repair on the B face of OBG Field Splice 3E/4E Weld ID: D2. The repair welding was per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position. SE QC Inspector Jesse Cayabyab was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1001-repair. Upon completion of the excavation (see photo below) the QAI observed SE QC Inspector Jesse Cayabyab performing Magnetic Particle Testing (MT) of the excavated area in OBG Field Splice 3E/4E Weld ID: D2, Face B. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. The welding was completed at this location and work at this location appeared to be in general compliance with contract documents. See summary of conversations below.

5). OBG Field Splice 4E/5E Weld ID: D1 & D2 Face A

The QAI performed verification visual & magnetic particle testing of 10% of the lengths of OBG Field Splice 4E/5E weld ID: D1 & D2, Face B. The QAI inspected 425mm of Weld D1 from Y = 3825mm to Y = 4250mm and 425mm of weld D2 from Y = 4250mm to Y = 5050mm. The welds verified by the QAI were found to be in general compliance with contract documents. See Report of Magnetic Particle Testing Form TL-6028 generated by the QAI on this date.

6). OBG Field Splice 5E/6E Weld ID: C1 & C2 Face A

The QAI periodically observed the in process welding of OBG Field Splice 4E/5E Weld ID: C2, Face A per the FCAW-G process in the 3G (vertical) position by Approved AB/F welder Song Tao Huang (ID 3794). See photo below. QC Inspector Bonafacio Daquinag was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-3042B-1. The QAI observed that the welding parameters obtained by Mr. Daquinag appeared to be in general compliance with the contract documents. Welding Amperes = 237, welding volts = 24.0 and the travel speed was 237mm/min. Welding was in process for the remainder of this shift.

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Summary of Conversations:

The QAI arrived at the OBG Field Splice 3E/4E Weld ID: D2, Face B and observed SE QC Inspectors Jesse Cayabyab and Steve McConnel and approved AB/F welder Fred Kaddu. Mr. Cayabyab asked the QAI to locate the rejectable UT indication discovered by the QAI on 7-16-2010 during verification UT. The QAI pointed out the location which was identified by a paint mark placed by the QAI at the time of testing. QAI Rick Bettencourt arrived about this time. SE QC Mr. Cayabyab instructed Mr. Kaddu to go ahead and remove the indication. The QAI asked Mr. Cayabyab if he was going to confirm the rejectable indication with UT. Mr. Cayabyab stated that he was not. QAI Rick Bettencourt spoke with the QC inspector and suggested that he should UT the indication so all parties would be on the same page. Mr. Cayabyab then confirmed the indication's depth and rating with UT and stated that the rating he obtained was a + 3.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

Inspected By:	Madison,Bert	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer